

We claim:

Claim 1      A valve position visual indicator comprising:

- a.      a hand wheel assembly mounted on a valve, the hand wheel assembly having a downward depending annular sleeve;
- b.      wherein the hand wheel assembly is attached to a linear moving valve stem, wherein said stem operates to open and close the valve;
- c.      a grommet defining a circular opening forming a band;
- d.      said grommet being attached to and encircling a bonnet portion attached to said valve adjacent to the point where said valve stem enters the valve bonnet;
- e.      said grommet projecting radially outward from the periphery of said valve bonnet such that an outer radius of said grommet intersects at least a portion of the path of said sleeve;
- f.      said grommet also having a breakaway portion defined by a groove adjacent the periphery of the grommet, disposed at least partially within the vertical plane of travel of the sidewalls, and a connector portion in the bottom of the groove for connecting the grommet to the breakaway portion;
- g.      said sleeve providing means for concealing said grommet at a point of maximum travel of the stem corresponding to a valve closed position, and for exposing the band on said grommet corresponding to a valve open position.

Claim 2.      The valve position visual indicator as set forth in claim 1, wherein said sleeve means for concealing said grommet comprises linear movement such that when the valve is in the closed position, the sleeve conceals said grommet entirely.

Claim 3.      The valve position visual indicator as set forth in claim 2, wherein said grommet defining a circular opening suitable for an interference fit about the perimeter of said valve bonnet.

Claim 4. The valve position visual indicator as set forth in claim 3, wherein said grommet having an inner radius defining said circular opening, said inner radius having a sawtooth surface comprised of a plurality of teeth for engagement with the bonnet portion.

Claim 5. The valve position visual indicator as set forth in claim 4, wherein said teeth are biased to permit movement of the grommet downward; said plurality of teeth each having a top edge and a bottom edge, wherein said top edge projects outward substantially perpendicular to the body portion, and said bottom edge is at an angle to the top edge.

Claim 6. The valve position visual indicator as set forth in claim 5, wherein said grommet also having a flared sidewall beveled radially outwardly to a predetermined point so as to be completely concealed by said annular sleeve portion having a tapered end portion cooperative with said flared sidewall when the valve stem is in the closed position.

Claim 6. The valve position visual indicator as set forth in claim 1, wherein said valve being mounted on a propane gas tank and in fluid communication therewith.

Claim 7. The valve position visual indicator as set forth in claim 1, wherein the hand wheel assembly also having peripheral sidewalls outside the diameter of the sleeve.

Claim 8. A valve position indicating means for use with a linearly moving valve stem comprising:

a) a valve body having a bonnet portion, an inlet port, an outlet port and an actuator means for controlling fluid communication between said inlet and outlet ports;

b) a stem portion connected to said actuator means extending into said bonnet portion through a hollow bore, said stem portion moveable axially within said bore to open or close said actuator means;

c) a hand wheel portion fastened to said stem portion for rotating the stem portion within the bore such that rotation of the hand wheel portion displaces the stem portion linearly within the hollow bore to open or close said actuator means;

d) a sleeve portion attached to the hand wheel portion and depending downwardly therefrom and having a hollow inside diameter;

e) an annular grommet portion affixed to the bonnet portion having an outside diameter less than the sleeve portion inside diameter; and projecting radially outwardly from the periphery of the bonnet portion;

f) a breakaway portion defined by a groove adjacent the periphery of the grommet, disposed at least partially within the vertical plane of travel of the sidewalls, and a connector portion in the bottom of the groove for connecting the grommet to the breakaway portion;

g) said grommet portion providing a visually contrasting band around said bonnet portion such that linear movement of the stem causes the sleeve to fully conceal said grommet when the actuator means reaches the point of closure.

Claim 9. The valve position indicating means as set forth in claim 8, wherein said hand wheel also having peripheral sidewalls depending downwardly to facilitate gripping and turning of said hand wheel.

Claim 10. The valve position indicating means as set forth in claim 8, wherein said grommet portion having an outwardly beveled side surface terminating at a point approximately adjacent said interior diameter of said sleeve portion when said actuator means is in the closed position.

Claim 11. The valve position indicating means as set forth in claim 8, wherein said grommet portion being comprised of an elastomeric material, said bonnet portion also having a groove circumscribed radially about said bonnet portion for retaining the position of said

*EXPRESS MAIL CERTIFICATE No. EK 781563723US*

grommet portion for precise marking associated with the closed position of the valve actuator means.

Claim 12. The valve position indicating means as set forth in claim 8, wherein said grommet portion being a fluorescent green color for visually contrasting indication when exposed by rotation of the valve stem.

Claim 13. The valve position indicating means as set forth in claim 8, wherein said grommet portion being a fluorescent color selected from the group of colors consisting of green or red for visually contrasting indication when exposed by rotation of the valve stem.

Claim 14. A visual position indicator for a valve with a linear moving valve stem which comprises:

- a. a means for moving the valve stem linearly in and out of the valve;
- b. a colored band attached to and resting on a bonnet portion of said valve adjacent to the point where said valve stem enters the valve bonnet;
- c. a concealing device for concealing the colored band at a point of maximum travel of the valve stem corresponding to a valve closed position, and for exposing the colored band when the valve is in an open position, said concealing device being attached to or moving with the means for moving the valve stem; said concealing device encompassing said colored band in close proximity thereto when in the closed position;
- d. a breakaway portion defined by a groove adjacent the periphery of the grommet, disposed at least partially within the vertical plane of travel of the sidewalls, and a connector portion in the bottom of the groove for connecting the grommet to the breakaway portion;
- e. an annular opening in said grommet having gripping means on an inner surface adjacent said valve bonnet to permit movement of the grommet toward the valve body.

Claim 15. The visual position indicator as set forth in claim 14, wherein said colored band is comprised of an elastomeric band retentively positioned at a predetermined point on said bonnet portion corresponding to the point of maximum travel of the valve in the closed position.

Claim 16. The visual position indicator as set forth in claim 1, wherein an outer radius of said grommet intersects at least a portion of the path of said sleeve, wherein the sleeve makes contact with said grommet and urges the grommet downward as the valve wears.

Claim 18 The visual position indicator as set forth in claim 8, wherein an outer radius of said grommet intersects at least a portion of the path of said sleeve, wherein the sleeve makes contact with said grommet and urges the grommet downward as the valve wears.

Claim 19 The visual position indicator as set forth in claim 15, wherein said color band projecting radially outward from the periphery of said valve bonnet such that an outer radius of said color band intersects at least a portion of the path of said concealing device, wherein the concealing device makes contact with said color band and urges the color band downward as the valve wears.